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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,491	01/07/2004	Keith W. Jones	AFD 602	5435
26/902 7590 12/23/2008 DEPARTMENT OF THE AIR FORCE AFMC LO/JAZ BLdg 11, Room D18 WRIGHT-PATTERSON AFB, OH 45433-7109				
EXAMINER				
MONIKANG, GEORGE C				
ART UNIT		PAPER NUMBER		
2614				
MAIL DATE		DELIVERY MODE		
12/23/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/751,491

**Applicant(s)**

JONES ET AL.

**Examiner**

GEORGE C. MONIKANG

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,8,10,13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7,9,11,12,15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/888)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, filed 9/30/2008, with respect to the rejection(s) of claim(s) 1, 3, 5-7, 9, 11-12, 15-16 under 10/505,403 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Pfaffinger et al, US Patent 7,123,724 B1.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Pfaffinger et al, US Patent 7,123,724 B1.

Re Claim 1, Pfaffinger et al disclose an inexpensive, programmable, frequency independent amplitude and phase shifting circuit comprising: an enclosure comprising: a plurality of signal sending digital control lines routed to an amplitude/phase shifting circuit board (*Pfaffinger et al, col. 3, lines 24-49*); and means for selecting a single amplifier for operator selected amplitude or phase gain change (*Pfaffinger et al, col. 2,*

lines 16-23); an amplitude/phase shifting circuit board comprising: a plurality of programmable gain operational amplifiers (Pfaffinger et al. col. 3, lines 24-49), one amplifier selected at a time to have its gain changed when an operator desires a new amplitude or phase (Pfaffinger et al. col. 3, lines 24-49); each of said digital control lines connected to a different multiplying operational amplifier chip select line on said amplitude/phase shifting circuit board (Pfaffinger et al. col. 3, lines 24-49); and means for controlling said amplitude/phase shifting circuit (Pfaffinger et al. col. 3, lines 24-49); means for holding printing circuit boards and a front panel for receiving input and output signals (Pfaffinger et al. col. 3, lines 24-49); a motherboard comprising: means for supplying input signals through said front panel (Pfaffinger et al. col. 3, lines 24-49); a power source (Pfaffinger et al. col. 3, lines 24-49: it is inherent that the circuits need power); digital control lines; and a demultiplexer circuit board (Pfaffinger et al. col. 3, lines 24-49: it is inherent that the circuit will be on a demultiplexer circuit board); said demultiplexer circuit board within said motherboard comprising: a plurality of signal receiving digital control lines from a digital output card in a personal computer (Pfaffinger et al. col. 3, lines 24-49: it is inherent that the circuit will be on a demultiplexer circuit board); and a plurality of signal receiving digital control lines for receiving output lines from said demultiplexer (Pfaffinger et al. col. 3, lines 24-49: it is inherent that the circuit will be on a demultiplexer circuit board).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 5-6, 9, 11-12, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfaffinger et al, US Patent 7,123,724 B1.

Re Claim 3, which further recites "Wherein said enclosure mounts onto a standard electronics rack." Pfaffinger et al fails to disclose mounting an enclosure on a standard electronic rack. Official notice is taken that both the concepts and advantages of using an electronic rack are well known in the art. It would have been obvious to use an electronic rack for the purpose of having a portable electronic device.

Re Claim 5, which further recites, "Wherein said means for controlling said amplitude/phase shifting circuit comprises a digital output card from a personal computer." Pfaffinger et al fails to disclose a digital output card from a computer. It would have been obvious to use a computer (i.e. cell phones) since computers are commonly used for signal processing.

Re Claim 6, which further recites, "Wherein said demultiplexer further comprises a 50-pin ribbon cable connector for accepting digital control lines coming from digital output card in a personal computer." Pfaffinger et al fails to disclose a 50-pin ribbon cable as claimed. Official notice is taken that both the concepts and advantages of

providing a 50-pin ribbon cable are well known in the art. Thus it would have been obvious to use a 50-pin ribbon cable since they are commonly used as input output adapters.

Claims 7, 9 have been analyzed and rejected according to claim 5.

Claim 15 has been analyzed and rejected according to claims 2 & 5.

Claims 11 & 12 have been analyzed and rejected according to claims 5-6.

Claim 16 has been analyzed and rejected according to claims 1 & 5.

#### **Contact**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F, alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/  
Examiner, Art Unit 2614

12/14/2008

**/Vivian Chin/**  
**Supervisory Patent Examiner, Art Unit 2614**

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